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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,014	07/20/2004	Tsukasa Aga	Q82625	8458
23373	7590	05/13/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				HUANG, MEI QI
		ART UNIT		PAPER NUMBER
		1713		

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/502,014	AGA, TSUKASA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mei Q.-Huang	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 20 July 2004.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-5, 9 and 10 is/are rejected.

7) Claim(s) 6-8 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/20/04, 08/09/04

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, line 15, "a side chain has at least 3 carbon atoms" renders the claim indefinite. It is not clear whether the backbone has one side chain which has at least three carbon atoms or the backbone has three side-chains.
3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. If the side chain limitation of R<sup>1</sup> in Claim 1 is interpreted as "R<sup>1</sup> has one side chain which has at least three carbon atoms", then the limitation of "the side chain is an alkyl group having 1 to 3 carbon atoms" is in conflict with Claim 1.
4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. If the side chain limitation of R<sup>1</sup> in Claim 1 is interpreted as "R<sup>1</sup> has one side chain which has at least three carbon atoms", then the limitation of "the side chain is a methyl group" is in conflict with Claim 1.

***Claim Rejections - 35 USC § 102/103***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

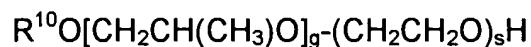
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 and 9-10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Oharu et al. (U.S. Patent No. 6,610,775).

The prior art to Oharu et al. discloses a water dispersion type water and oil repellent composition comprising a polymer which essentially contains polymerized

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units of a (meth)acrylate having a polyfluoroalkyl group and polymerized units of a polymerizable monomer which essentially contains a polymerizable unsaturated group and a hydroxyl group (Abstract), which appears to meet the instantly claimed component (A) of Claim 1. Oharu et al. further teach that the water and oil repellent composition also comprises a cationic surfactant (column 12, line 34-35) and a nonionic surfactant (column 2, line 41) having a general formula of



Formula 5

Wherein  $R^{10}$  represents an alkyl group, an alkenyl group or an alkpolyenyl group having a carbon number of 8 or more, s represents an integer of from 5 to 50, and g represents an integer of from 0 to 20 (column 9, line 42-52), and further, the alkyl group, the alkenyl group or the alkpolyenyl group may be of a linear structure or a branched structure. In the case of a the branched structure, a secondary alkyl group, a secondary alkenyl group or a secondary alkpolyenyl group is preferred (column 9, line 22-28), which appears to anticipate or render obvious the instantly claimed component (B) of Claim 1.

As to Claims 2-5, Oharu et als' general formula (Formula 5, column 9) wherein  $R_{10}$ , which represents an alkyl group having a carbon number of 8 or more and may be of a linear structure or a branched structure (column 9, line 42-52) are seen to anticipate or render obvious the limitation of the branched structure to methyl groups and incorporating three or more branches as instantly claimed. One of ordinary skill in the art would readily appreciate the teaching and be able to at once envisage the branched structure to methyl groups and employ three or more branches in the nonionic surfactant within the general formula.

As to Claims 9-10, a process of producing a water and oil repellent composition and a fiber or fiber fabric treated with the water and oil repellent composition are disclosed at column 26, line 9-12.

***Allowable Subject Matter***

8. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

The instant claim is allowable over closest references to Oharu et al. (U.S. Patent No. 6,610,775), Seki (U.S. Patent No. 6,306,944), and Furuta et al. (U.S. Pub. No. 2003/0040568). All the aforementioned prior arts teach water- and oil-repellent compositions comprising a nonionic surfactant having an identical general formula as required by the instantly claimed formula I (Oharu et al., column 9, line 51; Seki, column 7, line 17; Furuta et al., [0064]) but the isotridecyl group-containing nonionic surfactant having the general formula is not disclosed nor fairly suggested in their disclosures.

In addition, the instant claim is allowable over closest reference to Huhn et al. (U.S. Patent No. 4,625,010). Huhn et al. teach polyoxyethylene isotridecyl ether amount a list of nonionic emulsifiers (column 5, line 65) used in an organopolysiloxane composition. However this nonionic surfactant contains isotridecyl group but does not meet the general formula as instantly claimed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mei Q. Huang whose telephone number is (571) 272-3549. The examiner can normally be reached on 8am - 4pm, Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mei Q. Huang  
Examiner

May 9, 2005



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